TRANSMITT	ŃT	Docket No. 124457-1/GE3-0016								
In Re Application Of: Michael Bowman et al. FEB 2 4 2003										
Serial No. Filing Date Examiner Group Ar 10/065,985 December 6, 2002										
Title: METHOD, SYSTEM AND APPARATUS FOR COOLING HIGH POWER DENSITY DEVICES										
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CFR 1.9 Final Ac	CFR 1.97(b), provided that the Information Disclosure Statement is filed before the mailing date of a Final Action under 37 CFR 1.113, a Notice of Allowance under 37 CFR 1.311, or an Action that otherwise closes prosecution in the application, and is accompanied by one of:									
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			•	-				2002 Inter	Society		
		Abdel-Rahman, E. et al., "Size Considerations in Interfacing Thermoacoustic Coolers with Electronics", 2002 Inter Society Conference on Thermal Phenomena, pages 421-424.  Afanas'yev, V.N. et al., "Thermohydraulics of Flow Over Isolated Depressions (Pits, Grooves) in a Smooth Wall", Heat Transfer Research, Vol. 25, No. 1, 1993, pages 22-56.									
		Afanas'yev, V.N. et al., Experimental Therma	"Turbulent Flow	w Friction : ce, Vol. 7,1	and Heat Transfer Characte 993, pages 1-8.	eristics for Sp	herical Caviti	es on a Flat	Plate",		
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	Chyu, M.K. et al., "Con 97-GT-437, Orlando, 19	cavity Enhanced F 197, pages 1-7.	leat Transfer in an Internal Coolin	ig Passage", I	GTI Turbo Ex	po, Paper N	io	
	Dickinson, Randall D. et al., "A System Design Approach to Liquid-Cooled Microprocessors", 2002 Inter Society Conference on Thermal Phenomena, pages 413-420.							
	Gillespie, David R. H. e Geometry Employing O 1-8.	t al., "Detailed Floorthogonal Intersec	w and Heat Transfer Coefficient M ting Channels", Paper No. 2000-G	1easurements T-653, IGTI	in a Model of a Furbo Expo, M	an Internal Iunich, 200	Cooling 0, pages	
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					sfer in Cooled Blades of Ga s 1-5.						
		Heydari, Ali, "Miniature Vapor Compresssion Refrigeration Systems for Active Cooling of High Performance Computers", 2002 Inter Society Conference on Thermal Phenomena, pages 371-378.									
	Kesarev, V.S. et al., "Convective Heat Transfer in Turbulized Flow Past a Hemispherical Cavity", Heat Transfer Research, Vol. 25, 1993, pages 156-160.										
		Vol. 25, 1993, pages 156-	160.								
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